

Water Conditions Summary

July 15, 2010

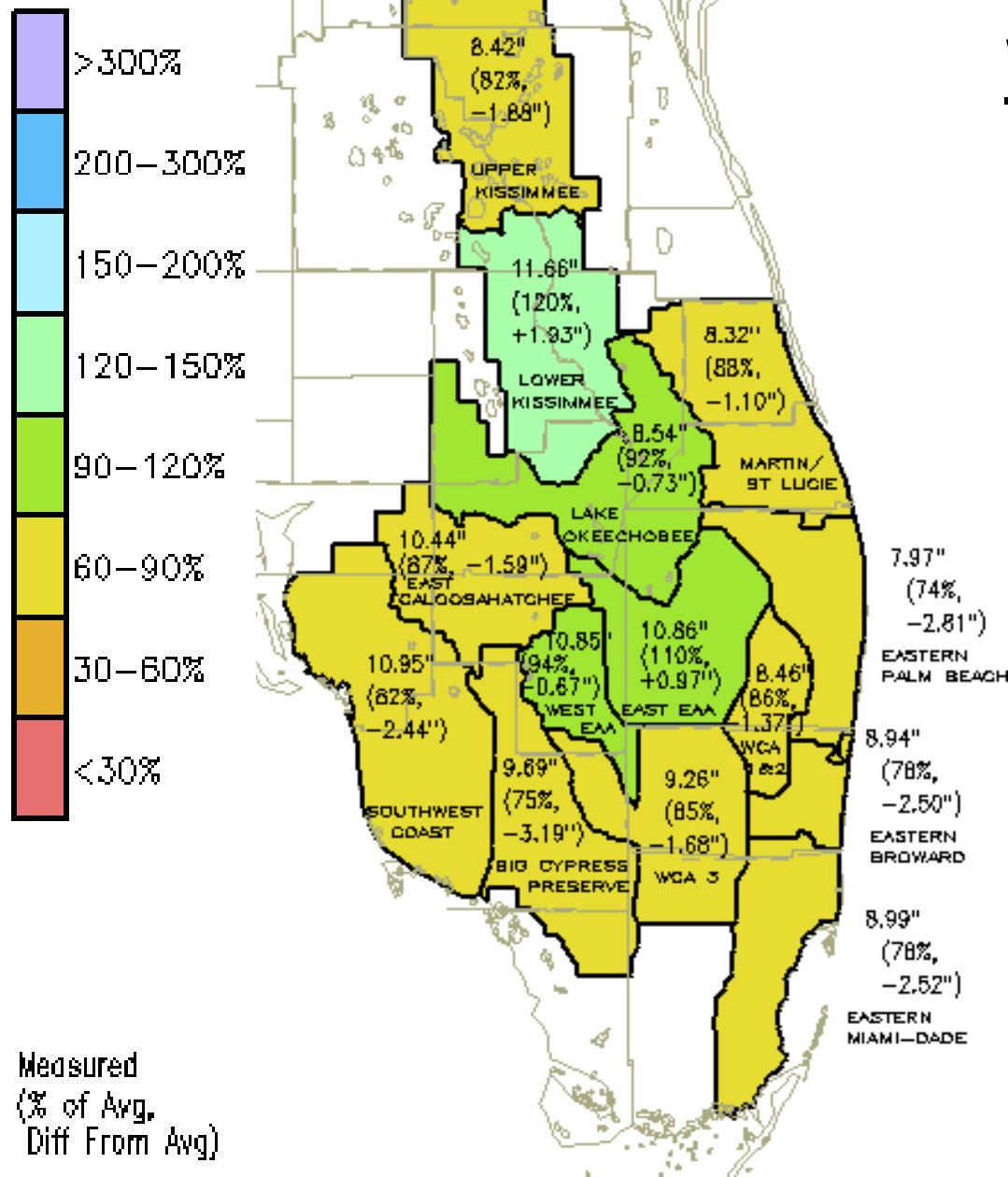
Calvin J. Neidrauer, P.E., Chief Engineer
Operations Control & Hydro Data Management Department
South Florida Water Management District

SFWMD 2010

Wet Season Rainfall

Jun 2 – July 14

DISTRICT-WIDE: 9.60"
(88% of Avg, or -1.29")



1976-2005 Averages

Jun: 8.03"

Jul: 6.83"

Aug: 7.54"

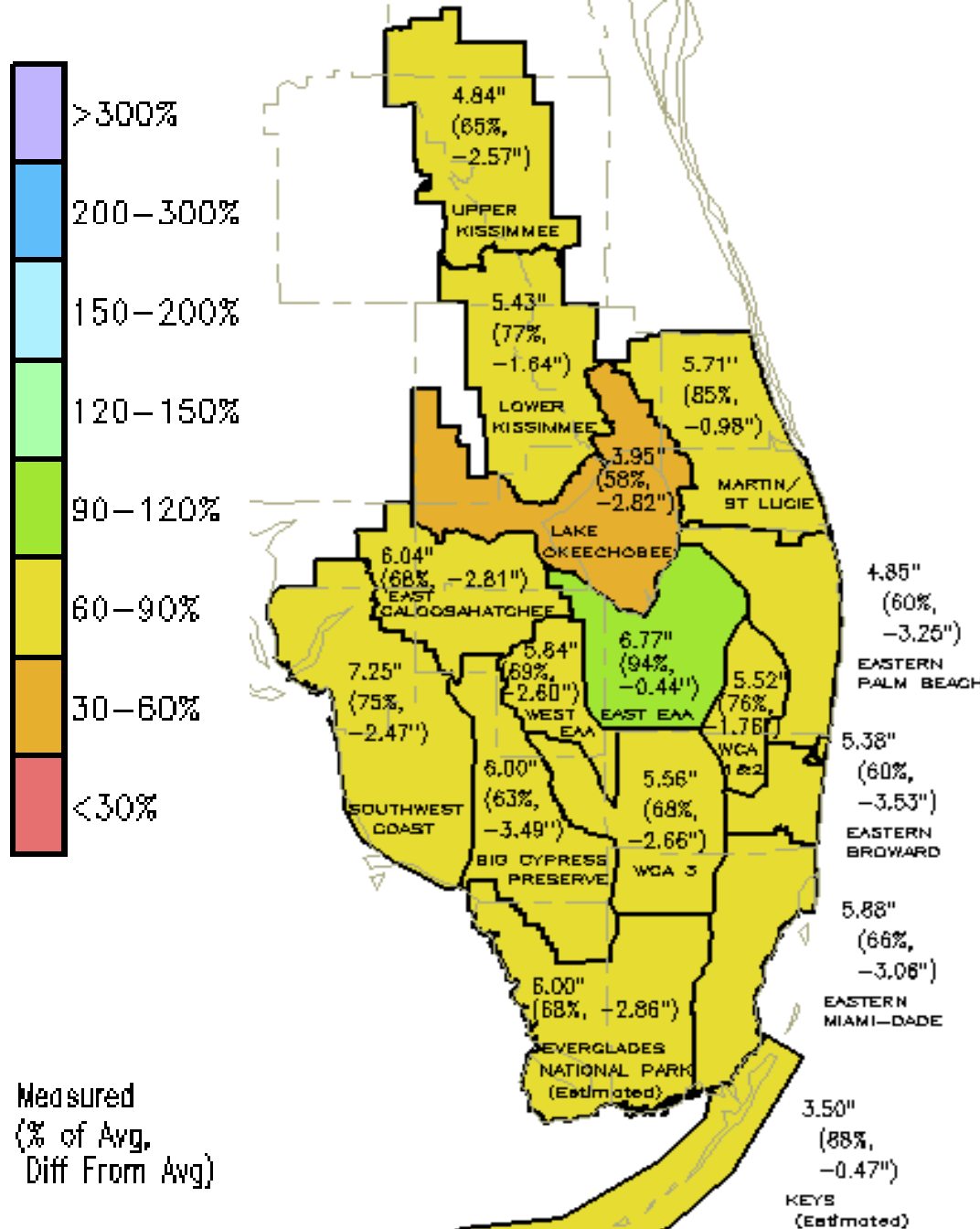
Sep: 7.05"

Oct: 3.76"

Wet Season: 33.21"

SFWMD 2010 June Rainfall June 2 – July 1

**DISTRICT-WIDE:
5.67" (71%, -2.36")**



• 1.6"-2.8" below-average for Lake O and basins north

• 2.6" deficit in the Upper Kissimmee

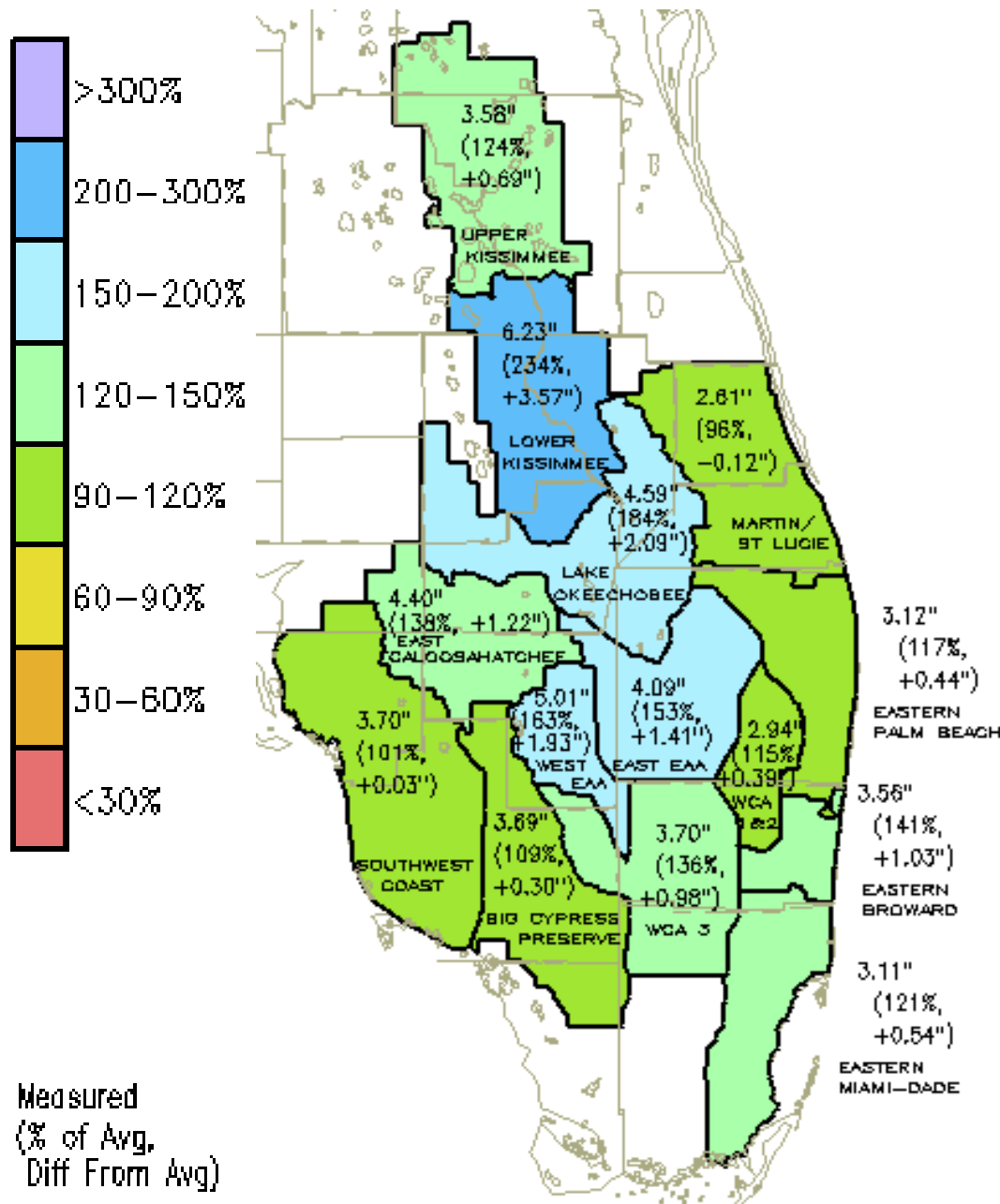
• Near avg rainfall for EAA

• 1"-3.5" below avg rainfall for all other basins

SFWMD 2010 July Rainfall July 2 – 14

**DISTRICT-WIDE:
3.93" (137%, +1.07")**

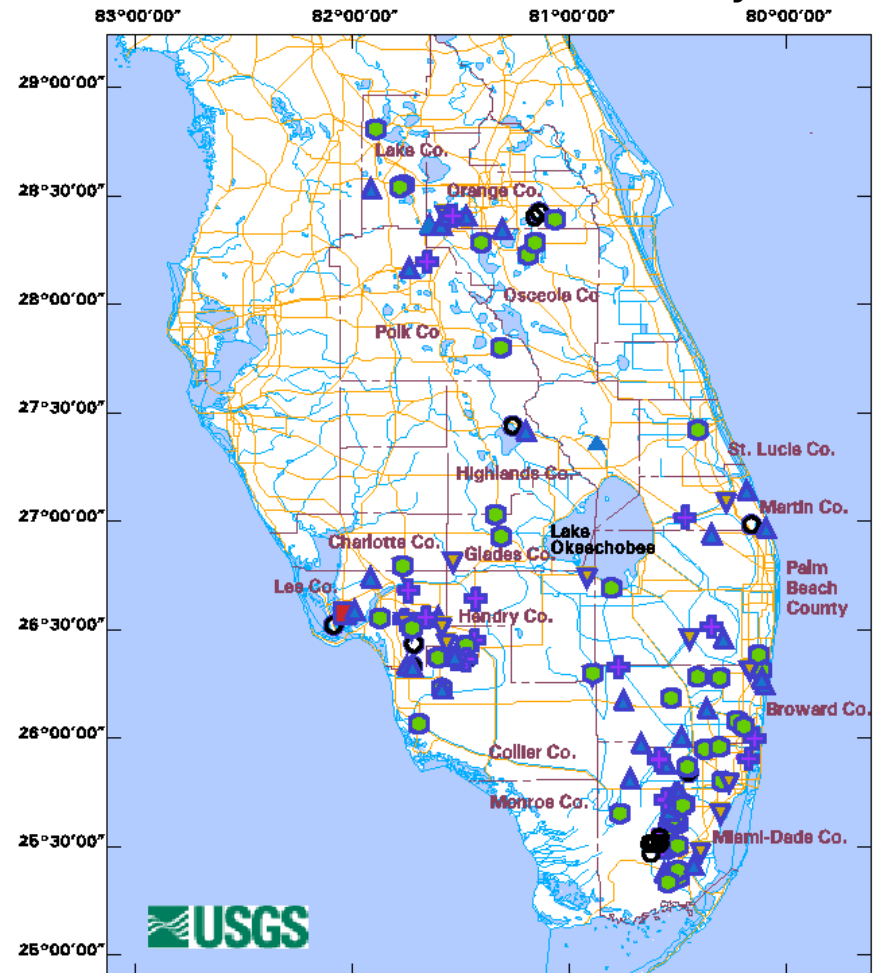
- *Interior basins received above-average rainfall*
- *Lower Kissimee basin received 3.5" above average*
- *All other basins received average to slightly above-average rainfall.*



Groundwater Levels & Water Supply Status

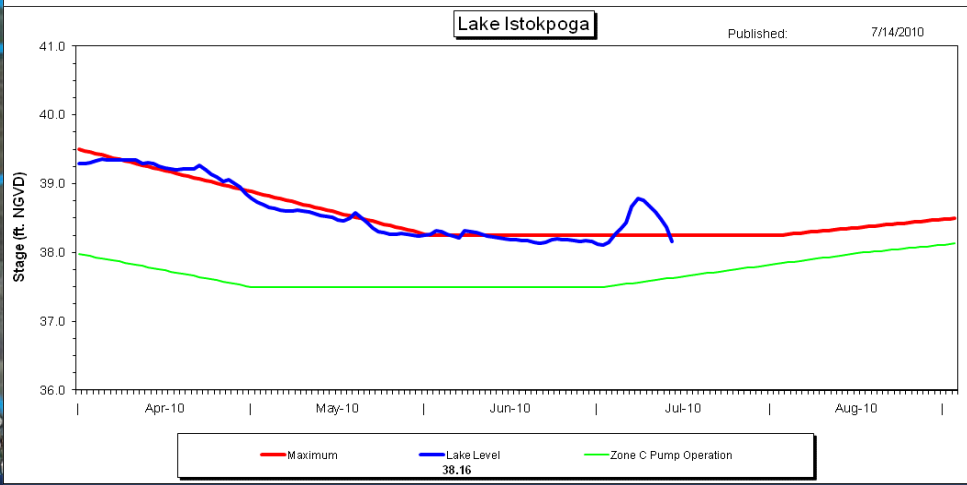
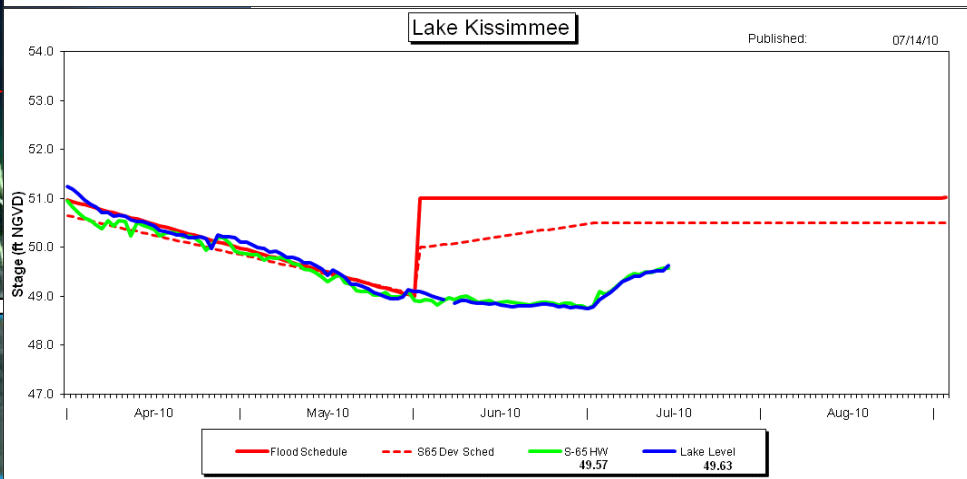
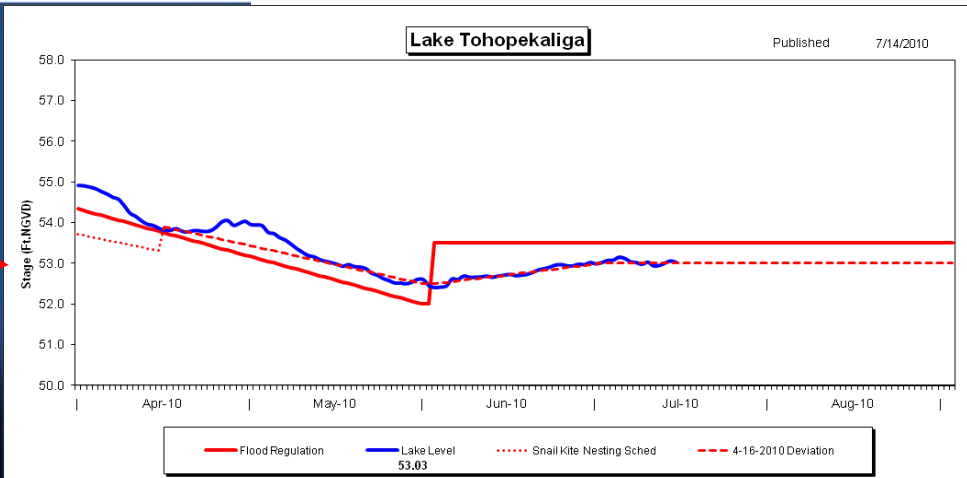
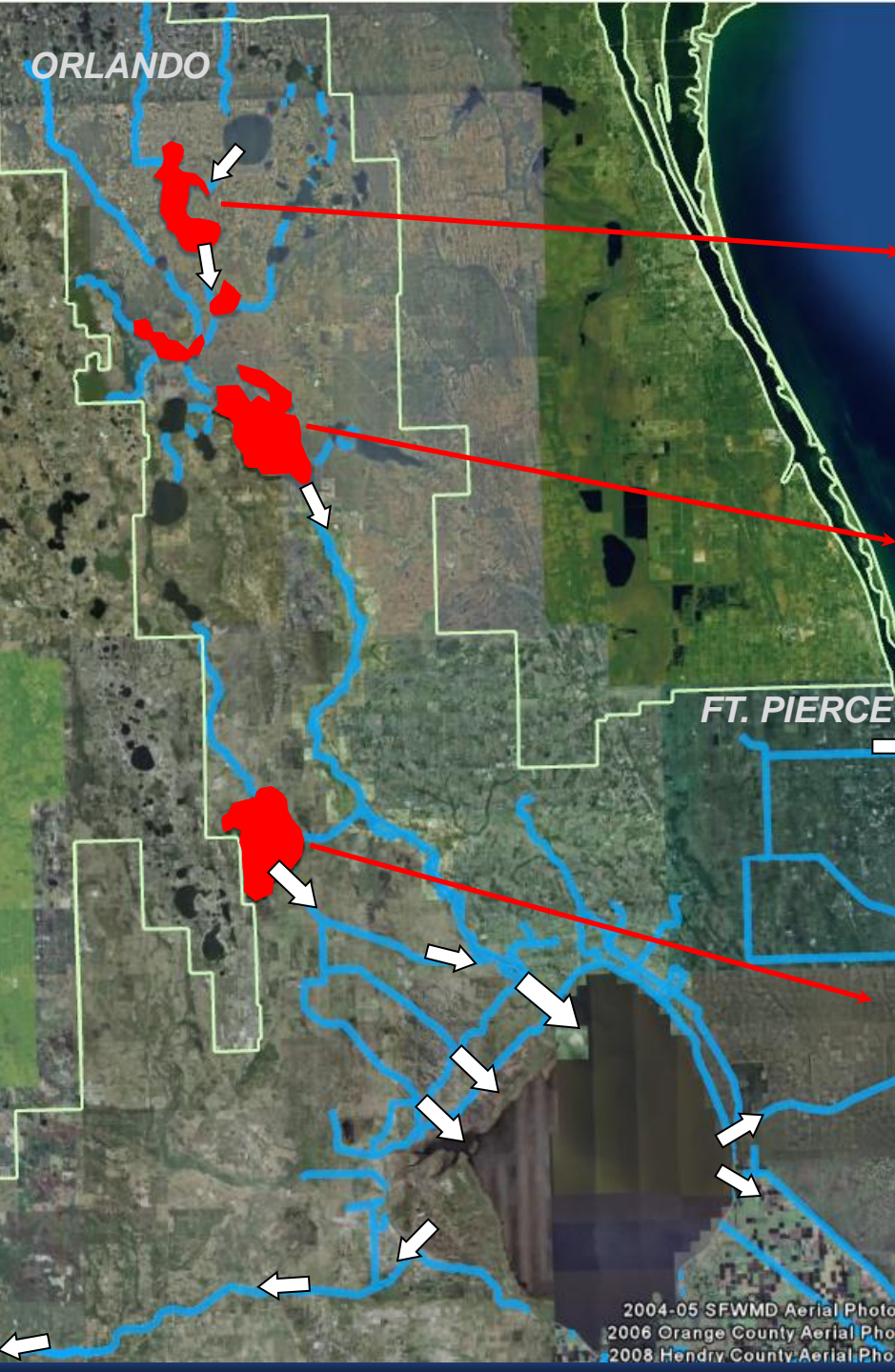
- Most groundwater well levels remain mostly near average or above-average for this time of year
- All water supply risk indicators remain in the “low” risk category

Water levels at selected sites in South Florida,
Based on PROVISIONAL DATA, as of July 13, 2010.



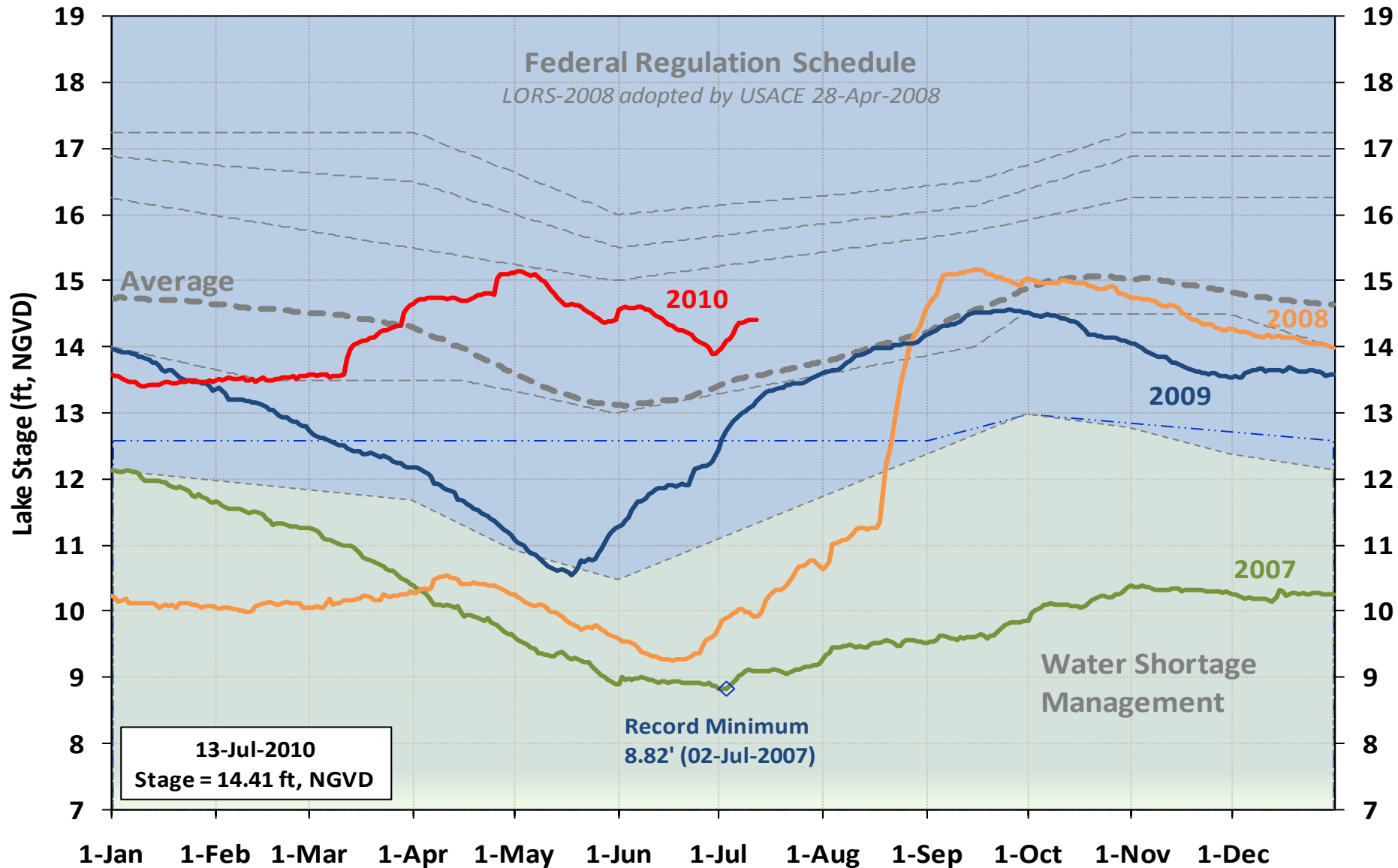
Water level compared to historical data, after long-term trends are removed:

- Insufficient information available to compute water-level statistics
- In lowest 10 percent of past water elevations
- ▼ Within lowest 10 to 30 percent of past water elevations
- Within 20 percent of the median of past water elevations
- ▲ Within highest 10 to 30 percent of past water elevations
- ✚ In highest 10 percent of past water elevations



Lake Okeechobee Stage Hydrograph Comparison

— Average (1965-2007) 2007 2008 2009 2010

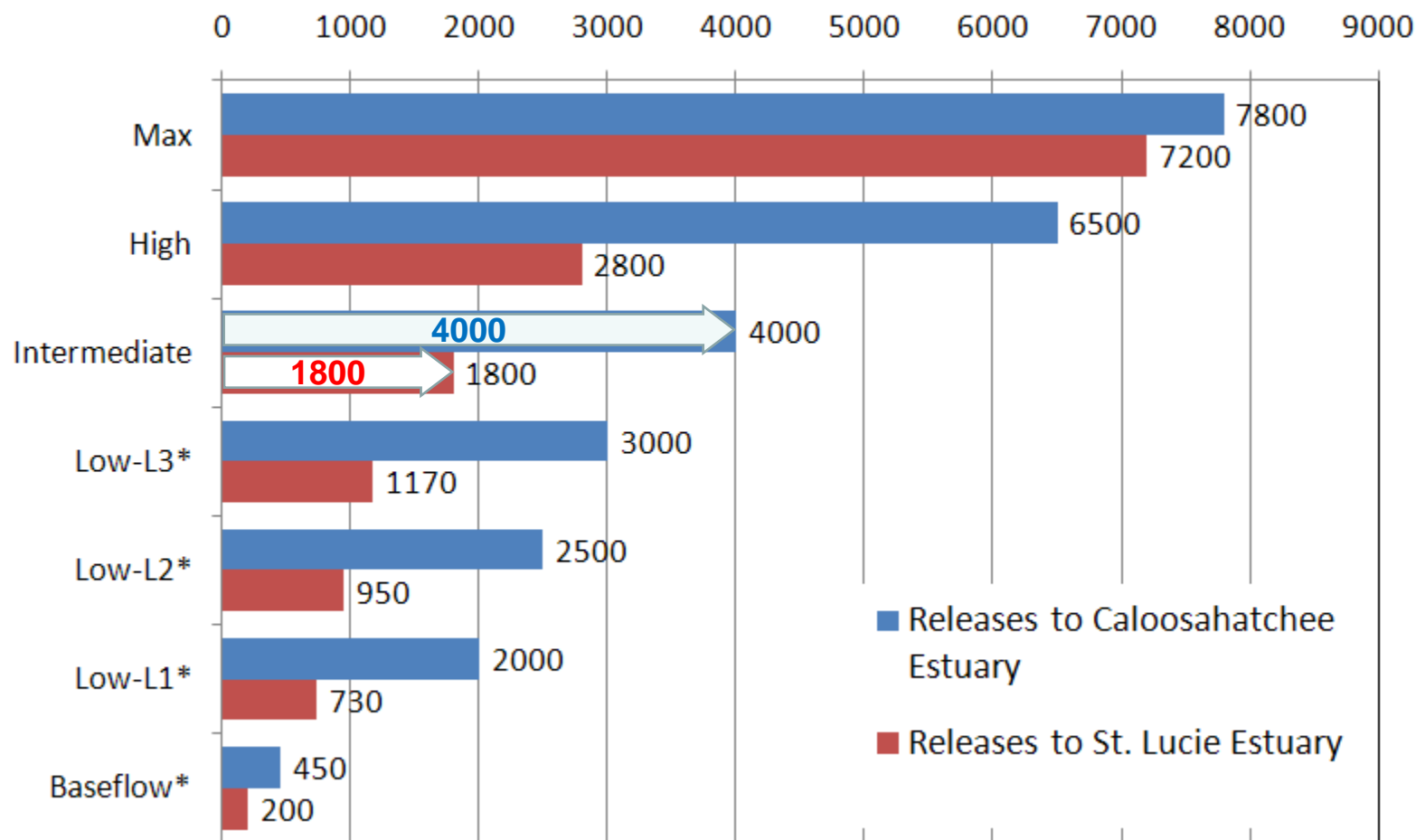


Current Release Rates

Lake Okeechobee Regulation Schedule 2008

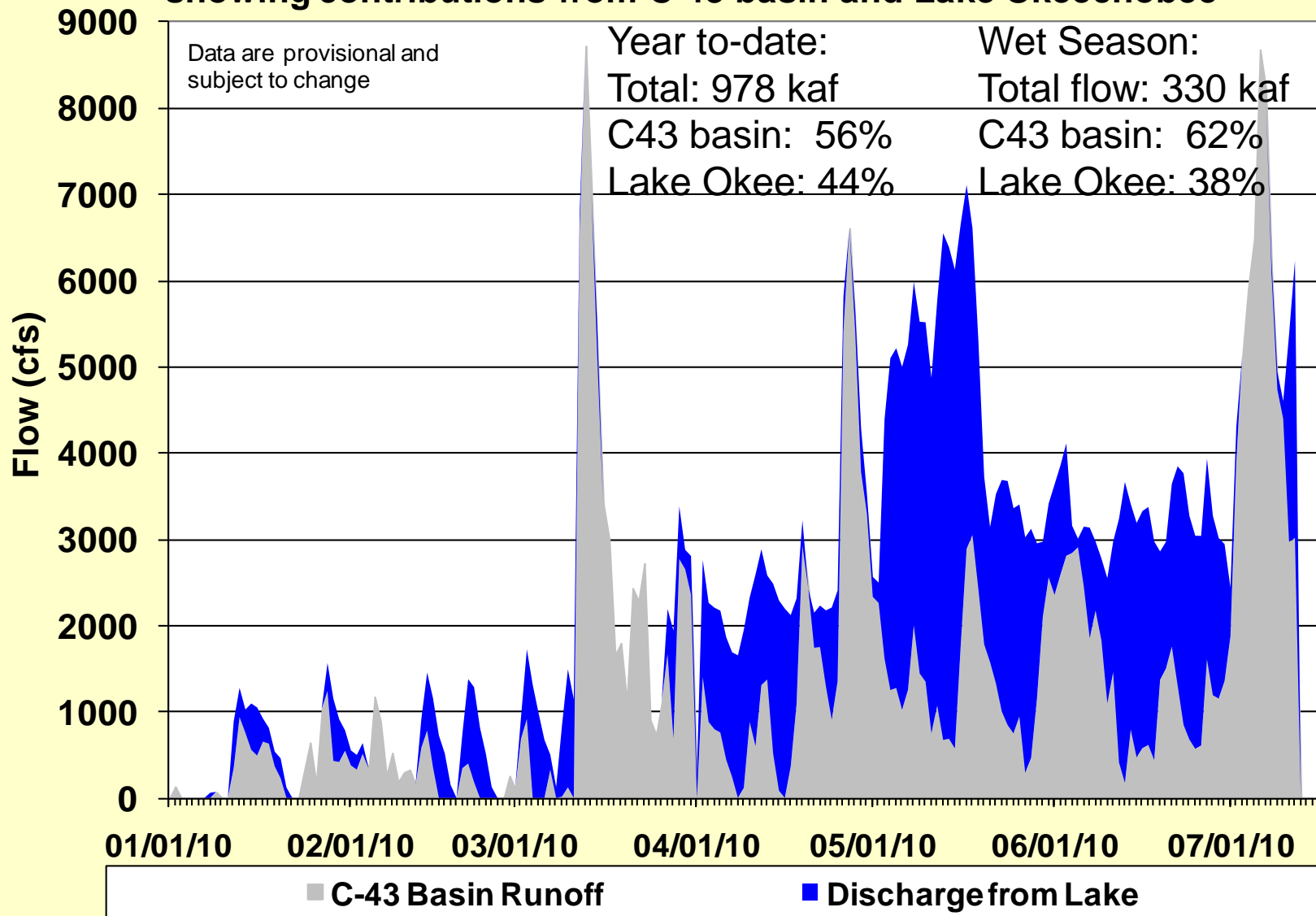
Release Rates (cfs)

LORS-08 Discharge Class

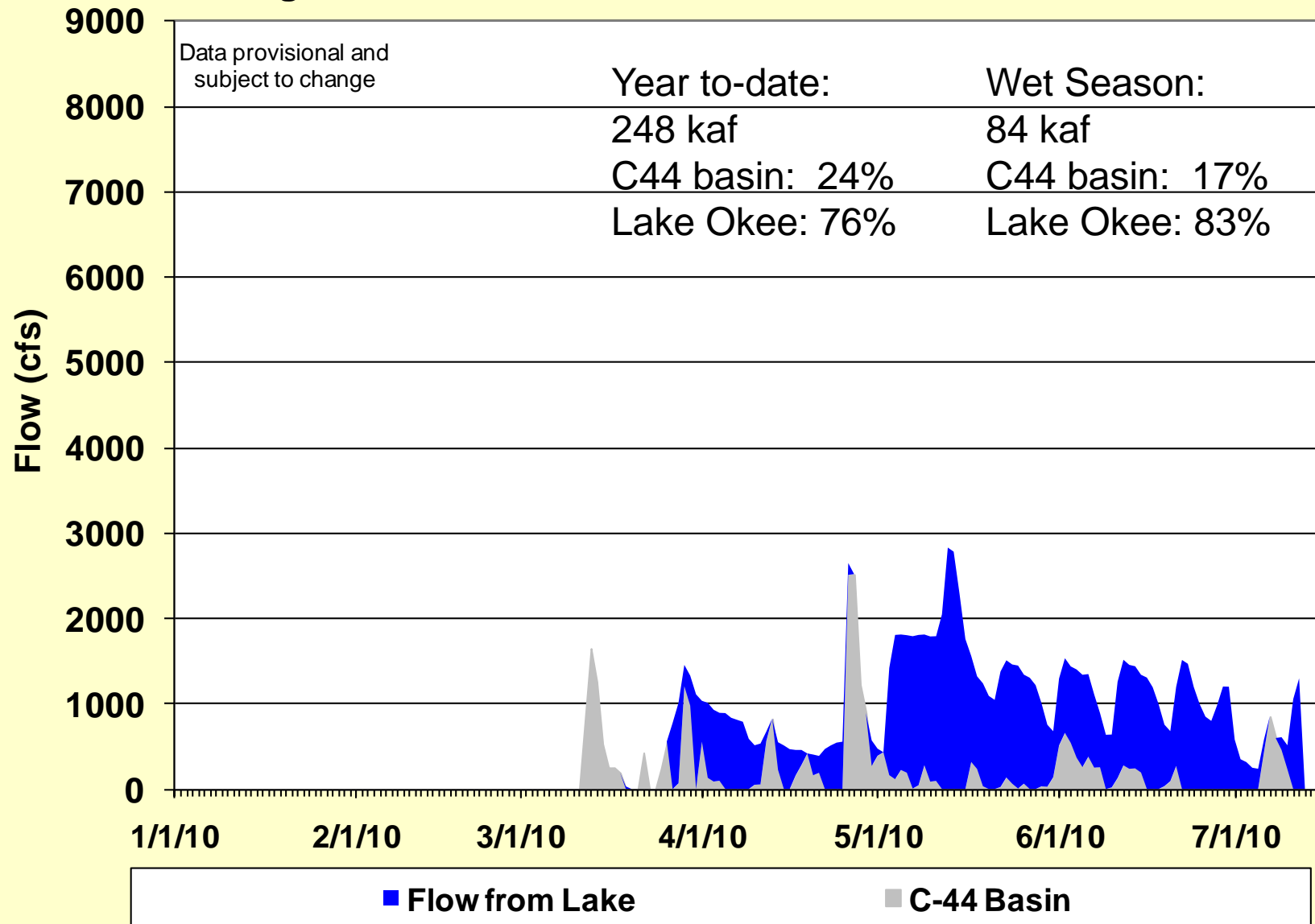


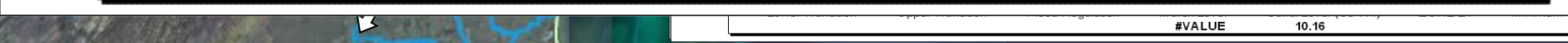
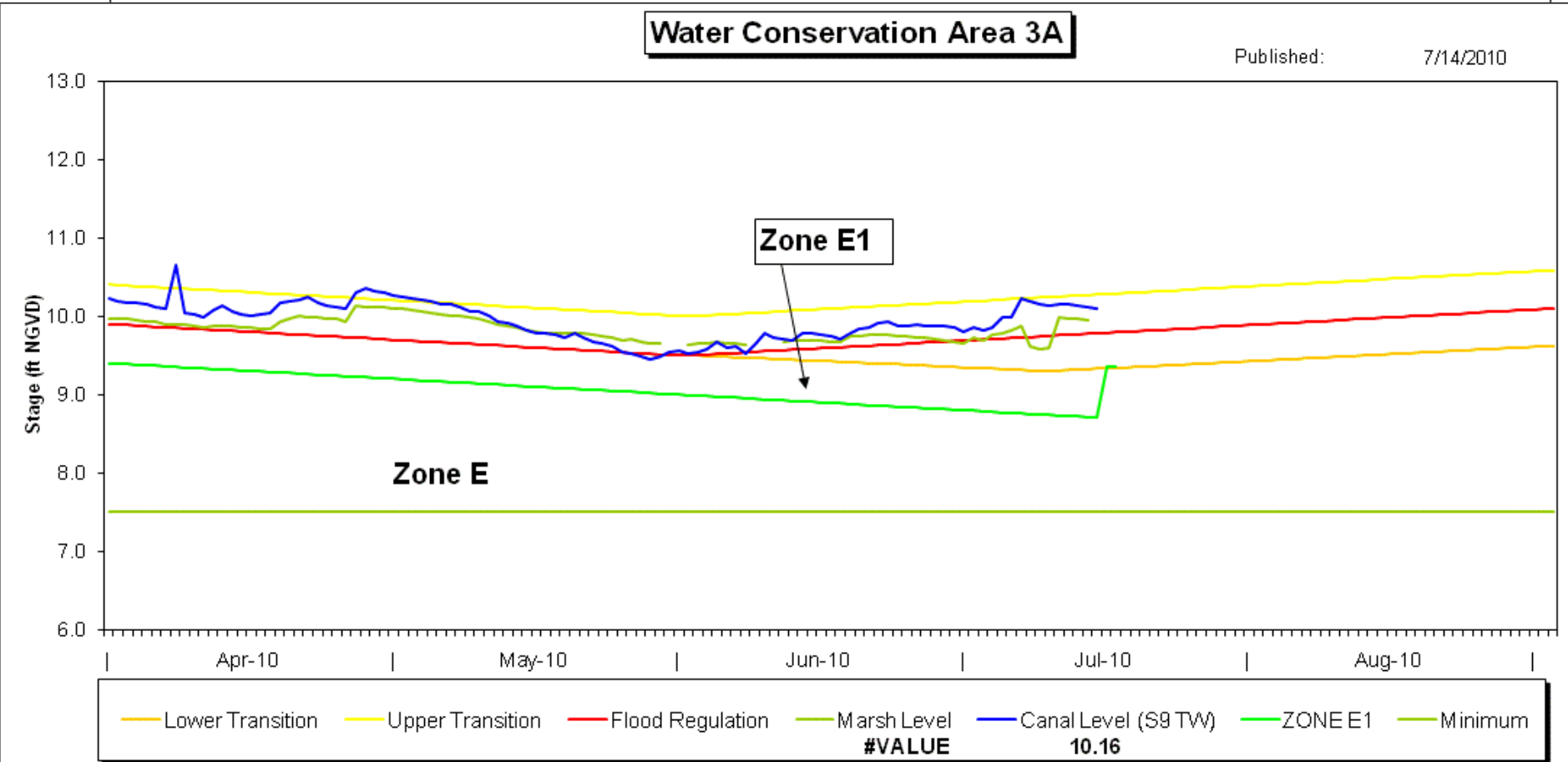
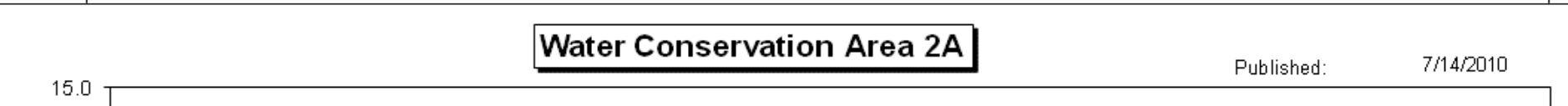
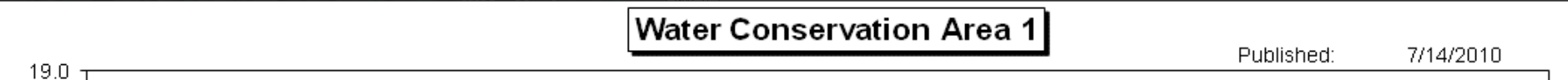
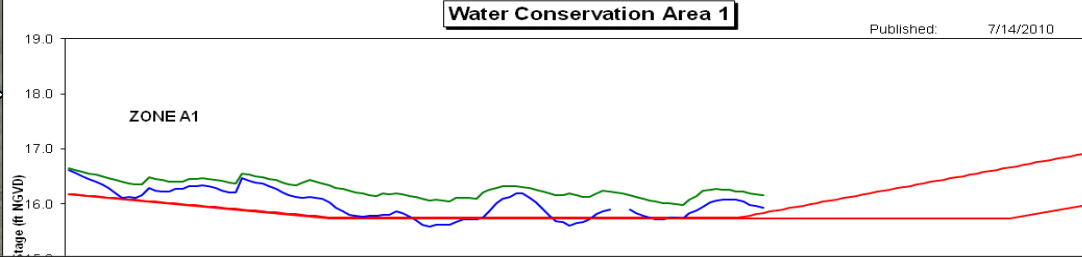
* Lake O Releases in the Baseflow & Low Subbands are limited by basin runoff

Total Flow From W.P. Franklin Lock and Dam (S-79) showing contributions from C-43 basin and Lake Okeechobee



Total Flow From St. Lucie Lock and Dam (S-80) showing contributions from C-44 basin and Lake Okeechobee

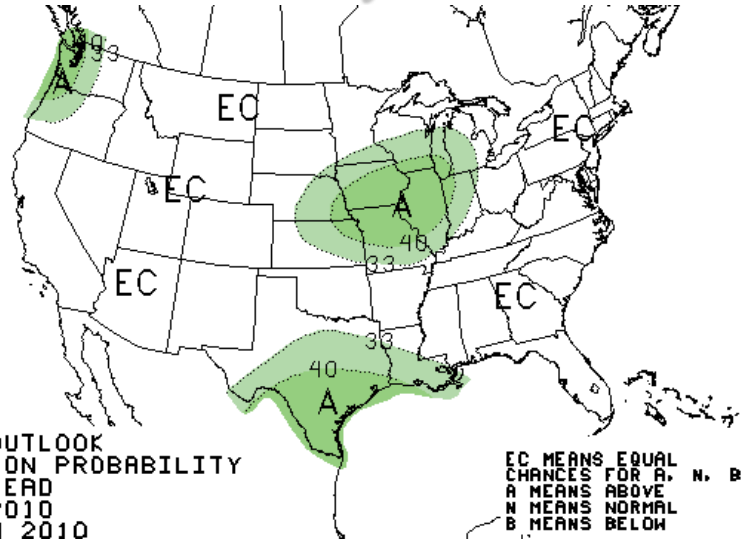




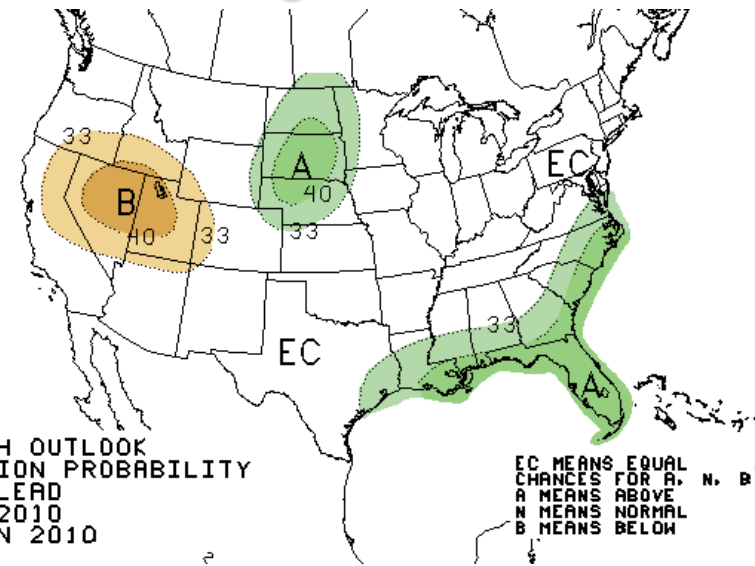
U. S. Seasonal Precipitation Outlook

National Climate Prediction Center (CPC)

July

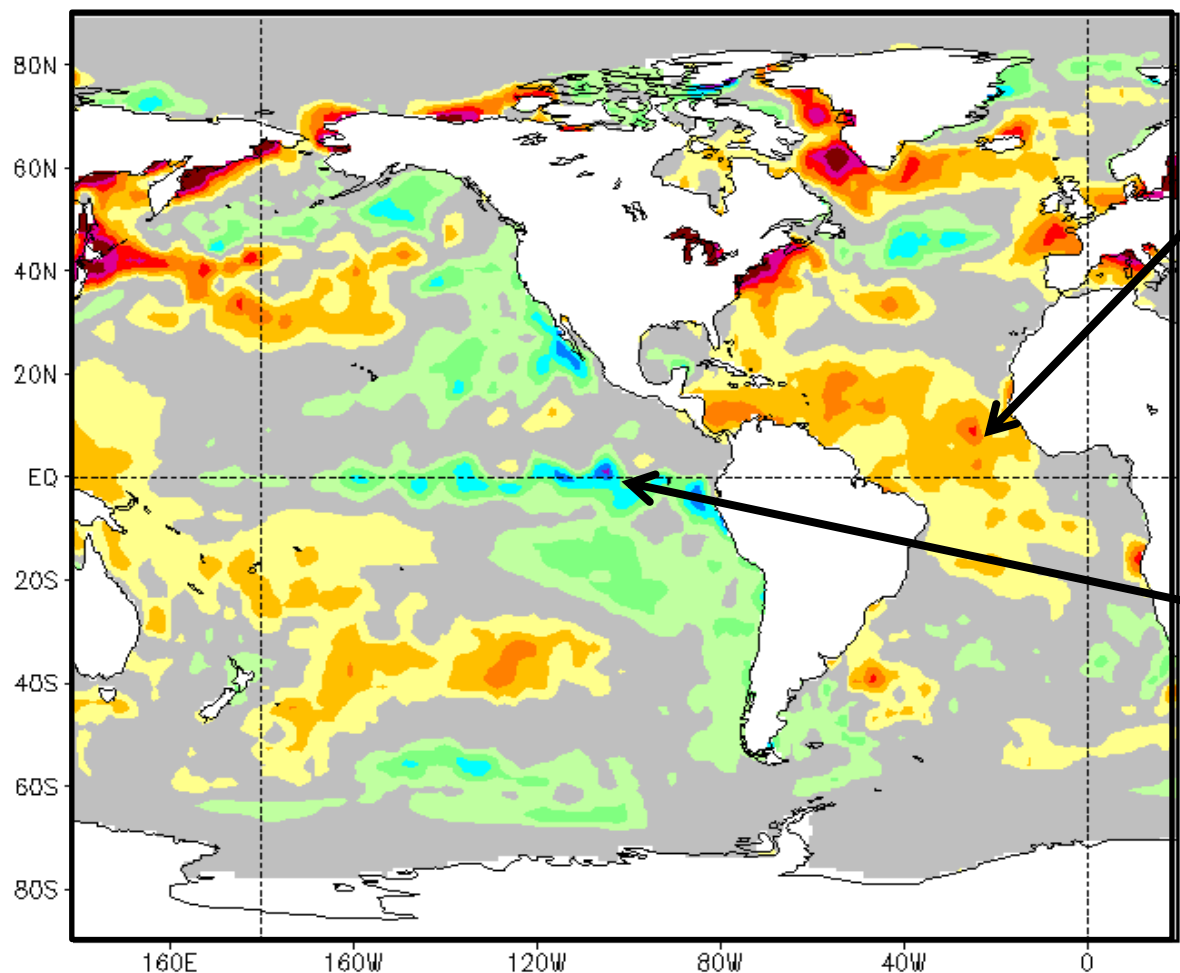


Aug-Oct



- Tropical Pacific Sea-Surface temperatures continue to cool. ENSO-neutral conditions exist and are trending toward La Nina conditions developing later in the hurricane season.
- Currently the tropical Atlantic sea surface temperatures are at record warm levels for this time of the year in the main hurricane-developing region. Pre-season predictions for the Atlantic hurricane season call for a very active hurricane season.
- The current outlook for June shows equal chances of above-normal, normal, or below-normal rainfall for central and southern Florida.
- The current outlook for Aug-Oct shows increased chances of above-normal (A) rainfall for central and south Florida.

Latest Weekly Global Sea Surface Temperature Anomalies



Very warm temperatures in the Atlantic main hurricane-development region

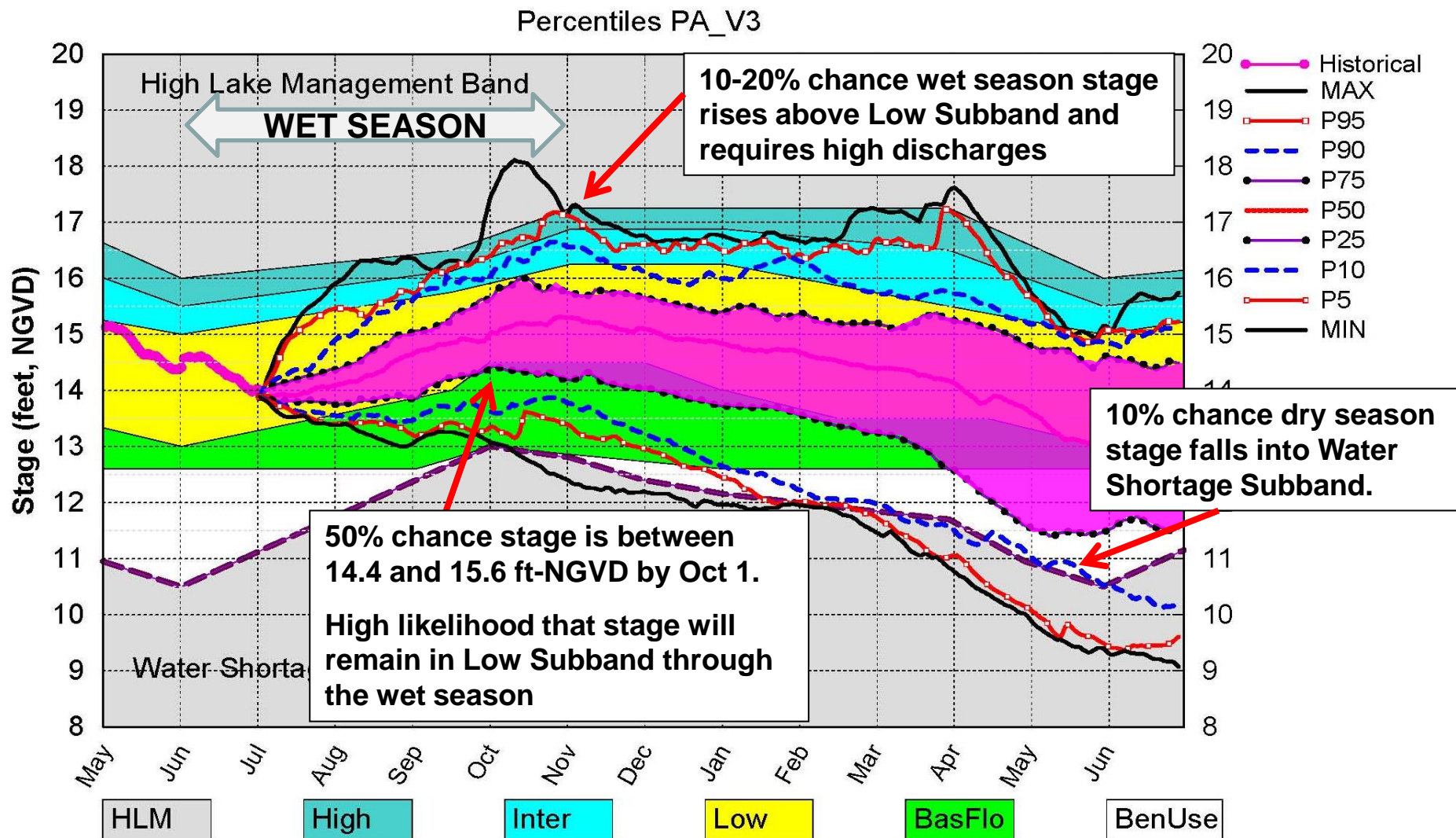
Cool temperature anomalies in the equatorial Pacific (La Nina conditions strengthening)

Sea Surface Temperature Anomaly ($^{\circ}\text{C}$), Base Period 1971–2000
Week of 7 JUL 2010

Lake Okeechobee Stage Forecast

- **Future Lake stage depends on future rainfall**
- **Projections provided monthly by SFWMD Hydrologic and Environmental Systems Modeling (HESM) Department**
Don Ketprakong, Paul Trimble, Danielle Morancy, Luis Cadavid, Jayantha Obeysekera
- **Position Analysis**
 - **Each year starts with current hydrologic conditions**
 - **41 1-yr simulations of system response to historical rainfall conditions**
 - **Statistical summaries used to display projections**

Lake Okeechobee SFWMM July 2010 Position Analysis



(See assumptions on the Position Analysis Results website)

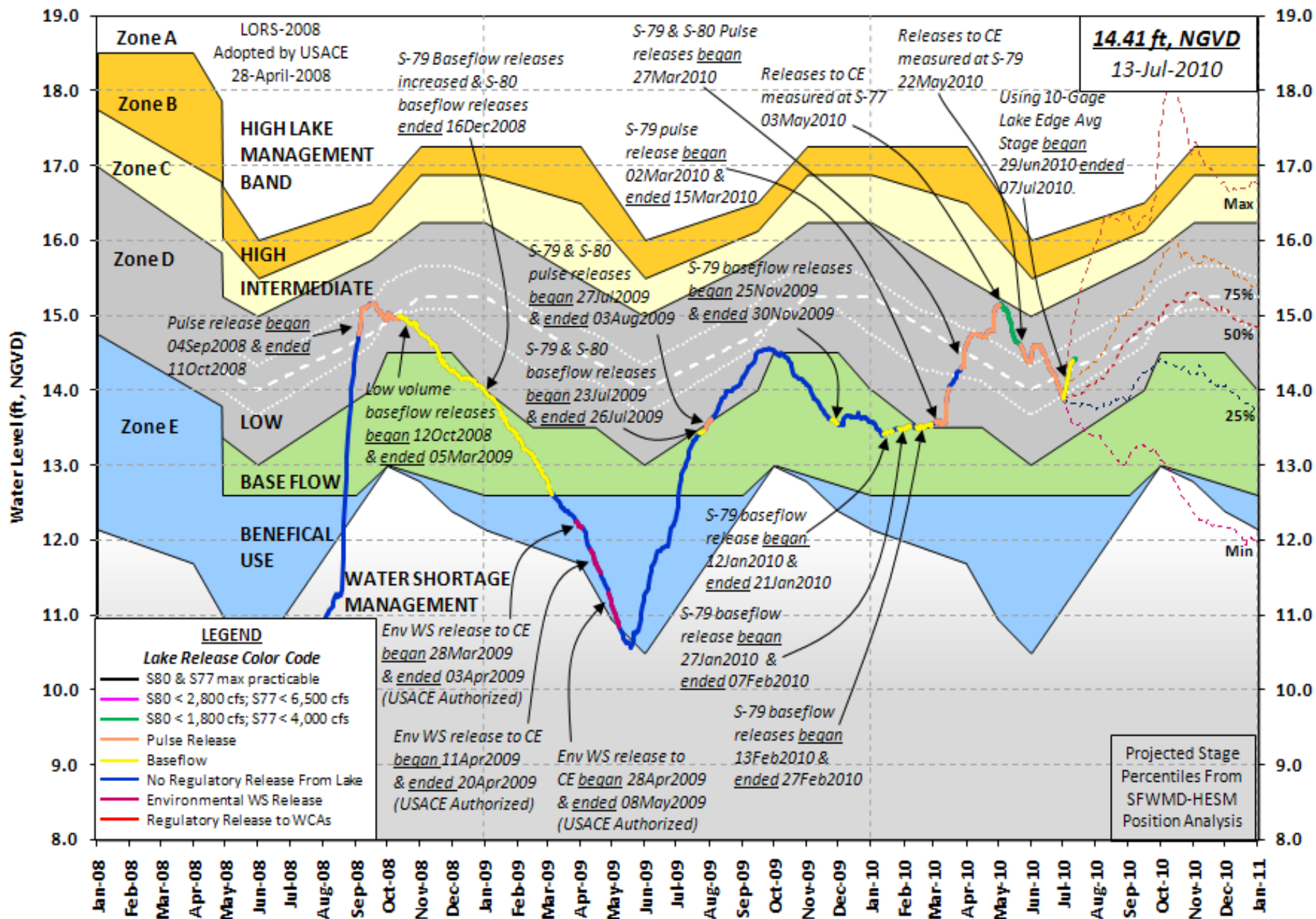
An aerial photograph showing a vast expanse of water interspersed with small, vegetated islands and peninsulas. Numerous palm trees are visible, some standing alone and others in small groups. The water is a deep blue, and the land areas are green with various plants and trees. In the far distance, a line of trees marks the horizon.

Questions??



Photo: looking north at Kissimmee River Phase 1 restoration area; April 13, 2010

Lake Okeechobee Water Level History and Projected Stages



SFWMD 2010 Dry Season Rainfall Nov 2 – Jun 1

DISTRICT-WIDE: 24.7"
(131% of Avg, or +5.9")

*1950-2008
Dry Season (Nov-May)
Median 15.3"*

(20.6" during El Nino years)

*Recall Last Year's
Nov-Apr Rainfall was 4.5"*

Driest since records began in 1932

